

IN THE CLAIMS:

Please amend the Claims as follows:

Sub B1
1. (Four Times Amended) A molded or cast article capable of withstanding high mechanical stress produced from a cellular polyurethane elastomer having a density within the range of from about 0.2 to about 1.1 g/cm³ which comprises a reaction product of:

- D1*
- a) from about 65 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;
 - b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
 - c) from about 0.2 to about 10 wt.%, based on the total weight of the reaction product, of at least one low molecular weight chain-lengthening and/or crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800,

with the proviso that the at least one chain-lengthening and/or crosslinking agent may not be water.

D2
2. (Thrice Amended) A process for producing the molded or cast article of Claim 1, wherein the higher molecular weight polyhydroxyl compound a) is reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer which is reacted with the at least one chain-lengthening and/or crosslinking agent and/or the at least one higher molecular weight polyhydroxyl compound.

D3
6. (Twice Amended) A molded or cast article capable of withstanding high mechanical stress produced from a compact polyurethane elastomer having a density within the range of from about 1.0 to about 1.4 g/cm³ which comprises a reaction product of:

- a) from about 55 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound

- having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;
- b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
 - c) from about 1 to about 20 wt.%, based on the total weight of the reaction product, of at least one crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800;

D3
with the proviso that a), b) and c) are reacted in the absence of water and/or blowing agents which have a physical or chemical blowing action.

7. (Twice Amended) A process for producing the molded or cast article of Claim 6, wherein the at least one higher molecular weight polyhydroxyl compound a) is reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer which is reacted with the at least one crosslinking agent and/or at least one higher molecular weight polyhydroxyl compound.

D4
8. (Amended) The process of Claim 7 in which the at least one crosslinking agent c) is present during production of the prepolymer.

9. (Twice Amended) A molded or cast article capable of withstanding high mechanical stress produced from a filler-containing compact polyurethane elastomer having a density greater than 1.2 g/cm³ which comprises a reaction product of:

- a) from about 55 to about 90 wt.%, based on the total weight of the reaction product, of at least one higher molecular weight polyhydroxyl compound having an average molecular weight of from 500 to 6,000 and a functionality of at least 2;
- b) from about 10 to about 25 wt.%, based on the total weight of the reaction product, of 2,3,5,6-tetramethyl-1,4-diisocyanatobenzene; and
- c) from about 1 to about 20 wt.%, based on the total weight of the reaction product, of at least one crosslinking agent having at least two hydroxyl groups and an average molecular weight of from 60 to 800;

with the proviso that a), b) and c) are reacted in the absence of water and/or blowing agents which have a physical or chemical blowing action.

D5
10. (Twice Amended) A process for producing the molded or cast article of Claim 9, wherein the at least one higher molecular weight polyhydroxyl compound a) is reacted with the diisocyanate b) to produce an isocyanate-terminated prepolymer which is reacted with the at least one crosslinking agent and/or at least one higher molecular weight polyhydroxyl compound.

D6
11. (Amended) The process of Claim 10 in which the at least one crosslinking agent c) is present during production of the prepolymer.

Please add the following claims:

D7
13. The molded or cast article of Claim 6 in which the cellular polyurethane elastomer is prepared in the presence of at least one catalyst selected from the group consisting of sodium salts and potassium salts of carboxylic acids in which the catalyst(s) is/are present in an amount in the range of from about 0.001 to about 3 wt.%, based on the total weight of reaction product.

14. The molded or cast article of Claim 9 in which the cellular polyurethane elastomer is prepared in the presence of at least one catalyst selected from the group consisting of sodium salts and potassium salts of carboxylic acids in which the catalyst(s) is/are present in an amount in the range of from about 0.001 to about 3 wt.%, based on the total weight of reaction product.

15. The molded or cast article of Claim 12 in which the cellular polyurethane elastomer is prepared in the presence of at least one catalyst selected from the group consisting of sodium salts and potassium salts of carboxylic acids in which the catalyst(s) is/are present in an amount in the range of from about 0.001 to about 3 wt.%, based on the total weight of reaction product.